

CURRICULUM VITAE

Théo TOUVET

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EDUCATION

- 2010 – 2011 Département de Mécanique, **École Polytechnique** (X) ParisTech, Palaiseau (France)
The most selective and extremely prestigious French engineering school
- 2011 *Master de Mécanique, Spécialité Mécanique des Fluides Fondements & Applications*, X/UPMC
Master's Degree in Mechanics, joint program with Université Pierre et Marie Curie - Paris VI
- 2010 Center for Atmospheric & Oceanic Sciences, **Indian Institute of Science**, Bangalore (India)
M Tech degree program in **Climate Science**, full term student exchange
- 2008 – 2010 Département Sciences de la Matière, **École Normale Supérieure (ENS) de Lyon** (France)
Prestigious fundamental science school with a highly competitive entrance exam
- 2009 *Licence Sciences de la Matière option Physique*, ENSL/Université de Lyon I
Equivalent to a Bachelor's Degree in **Physics**
- 2005 – 2008 *Classes Préparatoires aux Grandes Ecoles Scientifiques, Mention Très Bien*, Lycée du Parc, Lyon
Intensive Preparatory Classes to prepare for the ENS competitive entrance exam, Highest Honors
Major courses : Math, Physics, and Chemistry
- 2005 *Baccalauréat Scientifique Mention Très Bien*
High School Diploma in Science with the Highest Honors

RESEARCH INTERESTS

Mechanics; Aeronautics; Nonlinear Dynamics; Chaos Theory; Geophysical Fluid Dynamics;
Climate Modeling; Ocean Modeling; Environmental Concerns; Sustainable Technologies.

RESEARCH INTERNSHIPS

- 2011 NASA's Jet Propulsion Laboratory, **California Institute of Technology**, Pasadena (USA)
Climate, Oceans & Solid Earth Sciences Division, Oceans & Ice Group
Origin and evolution of water masses near polar ice sheets.
Supervisors: Dimitris Menemenlis & Tong Lee
- 2010 Department of Mechanical Engineering, **Massachusetts Institute of Technology**, Cambridge (USA)
Center for Ocean Engineering, Multidisciplinary Simulation Estimation & Assimilation Systems
Work on uncertainty predictions based on idealized climate models.
Supervisor: Pierre F.J. Lermusiaux
- 2009 Department of Mathematical & Statistical Sciences, **University of Alberta**, Edmonton (Canada)
Finger formation during buoyancy-driven crack propagation.
Supervisor: Richard V. Craster

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2009 Departments of Physics and of Earth & Atmospheric Sciences, University of Alberta, Edmonton (Canada)
Environmental and Industrial Fluid dynamics Laboratory
Experimental three-dimensional schlieren measurements: wavefield reconstruction of a towed sphere.
Supervisor: Bruce R. Sutherland

JOURNAL PUBLICATIONS

- "Fingering instability in buoyancy-driven fluid-filled cracks"
T. Touvet, N. J. Balmforth, R. V. Craster & B. R. Sutherland, *J. Fluid Mech.* (2011) **672**: 60–77
- "Experimental three-dimensional schlieren measurements: wavefield reconstruction of a towed sphere"
T. Touvet & B. R. Sutherland, to be submitted to *Exp. Fluids*

GRANT

- Fundraising Merit scholarship, Ecole Polytechnique Foundation, France (2010 – 2011)
- Explo'RA Sup, Région Rhône-Alpes, France (2008 – 2010)

LANGUAGES

- French : Native
- English : Fluent
- Spanish : Proficient
- French Sign Language : Intermediate

PERSONAL INTERESTS

- Trombone — 11 years in National Conservatory, High level (*niveau Diplôme d'Etudes Musicales*)
- Dance — High level in National Conservatory
- Gymnastics — 11 years, 8 in competition
- Horse back riding — Diploma allowing to ride in any competition and to instruct (*Galop 7*)
- French National Arts Circus School (2005) — Competitive international entrance exam passed

